Docket No. AUS920030181US1

ABSTRACT OF THE DISCLOSURE

DYNAMIC FREQUENT INSTRUCTION LINE CACHE

A cache system for a computer. In a preferred embodiment, a DFI-cache (Dynamic Frequent Instruction cache) is queried simultaneously with a main cache, and if a requested address is in either cache, a hit results. The DFI-cache retains frequently used instructions longer than the main cache, so that the main cache can invalidate lines while still enjoying the benefits of a cache hit when next accessing that line.